

## Using the NM Checklist to Review a SnapPlus Nutrient Management (NM) Plan

The information found on the NM Checklist is used to show the plan meets the WI NRCS 590 NM Technical Standard; and it is recorded to show the progress of Wisconsin NM planning. NM planning is one of the best practices farmers can use to ensure profitability, reduce excess nutrient applications to cropland, and reduce water quality problems. Any NM Checklist submitted to your local agency may be selected for a quality assurance review.

On the NM Checklist, circle the planner's qualification found in ATCP 50.48. Certified planners can be verified through the certifier NAICC, CCA, and SSSA. Farmers can sign off on their own plan if they receive training within the last four years.

**To review any item, pair the NM Checklist item number with the corresponding sections and SnapPlus reports below.**

Shaded sections 1c., 1h., 1i., 2d., 2e., 2g., 2i., and all of 3 are for farms with manure applications.  
Skip these sections if no manure or organic by-products are applied.

### Checklist 1. Does the plan include the following nutrient application requirements to protect surface and groundwater?

<b>1a.</b>	FM6 shows the soil testing laboratory used. These are the current <b>DATCP certified soil testing labs</b> : A & L Great Lakes Laboratories (Fort Wayne, IN), AgSource Soil & Forage Lab (Bonduel, WI), Dairyland Laboratories (Arcadia, WI), Rock River Laboratory (Watertown, WI), UW Soil & Forage Lab (Marshfield, WI).	<b>1f.</b>	NM2 will flag if <b>winter fertilizer</b> applications do not meet 590 and UW Pub. A2809. FM8 and NM5 shows application seasons by year. Open FM8 in Excel to sort by applications, season, crop, or rates.
<b>1b.</b>	NM2 flags if soil samples are not current or exceeding sampling requirements. For fields or pastures with mechanical nutrient applications, <b>soil samples</b> should be collected within the last <b>4 years</b> according to Std. 590 and UW Pub. A2809 typically collecting <b>1 sample per 5 acres</b> . Non-responsive fields for P and K can have more than 5 acres per sample. See A2809 for specifics. Soil samples can be grouped for contour strips. Tested samples are then copied into the respective fields to meet the 5 acres per sample. Open FM6 in Excel sorting by P or K levels to correlate the soil test reports to the sampled field. Soil tests are not required on pastures that do not receive mechanical applications of nutrients if either applies: 1. The pastures are stocked at an average stocking rate of one animal unit per acre or less at all times during the grazing season. 2. The pastures are stocked at an average stocking rate of more than one animal unit per acre during the grazing season, and a nutrient management plan for the pastures complies with 590 using an assumed soil test phosphorus level of 150 PPM and organic matter content of 6%.	<b>1g.</b>	Methods used to determine nutrient <b>application rates</b> may be mentioned in the Farm screen's narrative that is printed in NM1. NM4 shows the Nutrient screen's manure production, storage, spreaders, loads hauled, calibration notes, and equipment. NM5 shows application method and rates for nutrients sorted by crop. Rates should be realistic.
<b>1c.</b>	NM2 flags if soils tests are not meeting Std. 590 and UW Pub. A2809 requirements. For plans not meeting these requirements and seeking <b>livestock siting permit</b> approval, the applicant must collect and analyze soil samples meeting the requirements in UW Pub. A2809 within 12 months of approval and revise the nutrient management plan accordingly. Until then, either option below maybe used: 1. Assume soil test phosphorus levels are greater than 100 ppm soil test P. Or 2. Use preliminary estimates analyzed by a certified DATCP laboratory with soil samples representing > 5 ac/sample.	<b>1h.</b>	All manure needs to be allocated for the rotation to show that the farm has <b>adequate acres</b> to comply with 590. NM2 will flag if applications do not meet 590 and UW Pub. A2809. NM4 shows if all the manure has been allocated every year and the percent of manure collected. If not 100% collected, the plan should explain where the rest is going. The actual manure production is determined as the plan is implemented. The manure estimator can be used for the first year of the plan, updating the plan actual rate estimates.
<b>1d.</b>	NM 1, 3, 5 will show <b>field's identification</b> and acres. See SnapMaps for field's identification, restrictions, location, and boundary. Use NM1 for crops, tillage, and the farms acreage for each crop over the rotation. See NM3 for 590 restrictions, crops, and tillage over the rotation.	<b>1i.</b>	NM2 and NM3 provide 590 compliance checks. When fields receive manure or organic by-products during the crop rotation, all sources of P need to be applied over the rotation for an accurate P assessment. These reports show compliance for both P management strategies. Only 1 strategy is required. <b>PI Strategy:</b> The planned average PI values for up to an 8-year rotation in each field shall be 6 or lower and may not exceed a PI of 12 in any individual year. <b>Soil test P:</b> SnapPlus calculates P targets for the rotation length set by the planner for each field. If soil test P is 50-100 ppm, then P applications must equal crop removal rates for the rotation. If soil test P is >100 ppm, and applications are necessary, applications shall be 25% less than the annual crop removal over a rotation length of 8 years or less.
<b>1e.</b>	NM2 will flag if applications do not meet 590 and UW Pub. A2809. NM5 shows predominant soil, yields, <b>planned applications</b> , and nutrient credits for a selected year. Open FM8 in Excel to sort by applications, season, crop, or rates.	<b>1j.</b>	NM2 and NM3 show compliance for both P management strategies and <b>tolerable soil loss (T)</b> . Compare these to the SnapMaps soil selection. Fields exceeding "T" should not have nutrient applications. Verify on the SnapMaps Field and Restriction tabs that critical soils information has been imported back to the SnapPlus Field's page. If data is bold and italicized, then it has not been imported and should be explained.

## Checklist 2. Does the plan include the following nutrient application requirements to protect surface and groundwater?

Application restrictions show up on report NM3. SnapMaps spreading restrictions can automatically mark the restrictions in the feature box on the field screen when downloaded into your SnapPlus database. See SnapPlus Help menu for instructions.

<b>2a.</b>	NM1 shows the narrative. It should have comments if grassed waterways are needed. Use contours; reduced tillage; adjust the crop rotation; or implement other practices to prevent <b>ephemeral</b> erosion; and maintain perennial vegetative cover to prevent reoccurring <b>gullies</b> in areas of concentrated flow. Grassed waterways should only have nutrient applications during their establishment.	<b>2e.</b>	Applications to <b>locally delineated</b> areas prohibiting manure will need to be substantially buried within 24 hours.
<b>2b.</b>	NM2 will flag if applications are applied where the crop is not harvested. Nutrient can't be applied within 8' around <b>irrigation</b> wells or where <b>vegetation is not being removed</b> .	<b>2f.</b>	NM2 will flag if applications of a blended <b>fall commercial N fertilizer</b> exceeds 36 lbs. of N per acre on: N restricted soils (P, W, R Soils), soils with depths of 5 feet or less to bedrock, and areas within 1,000 feet of community wells. NM3. Will show the fields that contain N restricted soils. If the plan uses SnapMaps, verify on the SnapMaps Field and Restriction tabs that the necessary features have been imported back to the SnapPlus Field's page. If data is bold and italicized, then it has not been imported yet.
<b>2c.</b>	Make no nutrient applications within <b>50' of all direct conduits to groundwater</b> , unless directly deposited by gleaning/pasturing animals or applied as starter fertilizer to corn.	<b>2g.</b>	NM2 will flag if manure applications in late summer or fall exceed A2809 and 590 levels on <b>PRW Soils</b> .
<b>2d.</b>	NM2 will flag if <b>untreated manure</b> sources are applied near community wells. Only the community wells are in SnapMaps, non-community wells need to be identified by the planner. Planners will need to note which manure sources are treated to substantially eliminate pathogens.	<b>2h.</b>	NM2 will flag if applications in the Surface water quality management area ( <b>SWQMA</b> ) require conservation practices.
		<b>2i.</b>	NM2 will flag if mechanical applications of <b>unincorporated liquid manure</b> exceeds 12,000 gallons/ac <b>where subsurface drainage</b> is present and/or in the <b>SWQMA</b> .

## Checklist 3. When frozen or snow-covered soils prevent effective incorporation, does the plan have winter spreading applications for all mechanically applied manure or organic by-products?

Nutrient over-applications will show up on report NM2. This section does not apply to manure deposited through winter gleaning/pasturing of plant residue and not exceeding the N and P requirements of this standard.

<b>3a.</b>	NM6 shows <b>manure quantities planned to be spread in the winter</b> . Applications should match the quantities that need to be applied.	<b>3e.</b>	NM2 flags if areas within <b>300 feet</b> of direct conduits to groundwater get winter manure applications. If applications can't drain to well it should be noted in the plan.
<b>3b.</b>	NM4 shows <b>storage capacity</b> . It should correspond the NM6 requirements.	<b>3g.</b>	NM2 flags if winter manure applications do not use 2 practices listed in NM Checklist when a field's slopes are > <b>6%</b> or have <b>concentrated flow</b> areas.
<b>3c.</b>	NM 2 flags if mechanical applications of manure are applied in the winter in the <b>SWQMA</b> .		
<b>3d.</b>	NM2 flags if mechanical applications of liquid manure occur during <b>February and March</b> where Silurian dolomite is within 60 inches of the soils surface or where DNR Well Compensation funds provided replacement water supplies		

## Report Abbreviations Used in Note's References

### Necessary 590 Reports:

**NM1:** Narrative & Crops Report

**NM2:** Compliance Check

**NM3:** Field Data & 590 Assessment

**NM4:** Manure Tracking

**NM5:** Spreading & NM Sorted by Crop

**NM6:** Winter Spreading Plan

### Optional 590 Reports:

**NM6:** DNR CAFO Annual Spreading

**NM7:** Animal Units

**NM8:** DNR Daily Log

**NM9:** DNR CAFO Nutrient Balance

**NM10:** CAFO Emergency Spreading

**FM1:** Annual Manure Production

**FM2:** Applications Summary

**FM3:** Producers Plan

**FM4:** Crop Production Trends

**FM5:** Lime Report

**FM6:** Soil Test Summary

**FM7:** Soil Test - Sample Log

**FM8:** \$Spreading Plan

**FM9:** Nutrient Management Plan

**FM10:** Annual PI

**SL1:** Soil Conservation

**SL2:** Annual Soil Loss

**SL3:** Transect Survey

**WQ1:** P Trade

**DD1:** Annual Cropping Data

**DD2:** Applications Data

**DD3:** Precision Recommendations